

WHAT IS CLAIMED IS:

1. An isolated polynucleotide comprising a polynucleotide having at-least 95% identity to a member selected from the group consisting of:
  - (a) a polynucleotide encoding a polypeptide comprising amino acid 126 to 177 of SEQ ID NO:2; and
  - (b) the complement of (a).
2. The isolated polynucleotide of claim 1 wherein said member is (a).
3. The isolated polynucleotide of claim 1 wherein said member is (a) and the polypeptide comprises amino acids 26 to 177 of SEQ ID NO:2.
4. The isolated polynucleotide of claim 1 wherein said member is (a) and the polypeptide comprises amino acids 26 to 204 of SEQ ID NO:2.
5. The isolated polynucleotide of claim 1 wherein said member is (a) and the polypeptide comprises amino acids 1 to 177 of SEQ ID NO:2.
6. The isolated polynucleotide of claim 1 wherein said member is (a) and the polypeptide comprises amino acids 1 to 204 of SEQ ID NO:2.
7. The isolated polynucleotide of claim 1, wherein said member is (a) and the polynucleotide is DNA.
8. The isolated polynucleotide of claim 1 comprising a polynucleotide encoding a polypeptide comprising the amino sequence identical to amino acids 26 to 177 of SEQ ID NO:2.

9. The isolated polynucleotide of claim 1, wherein said polynucleotide is RNA.

10. The isolated polynucleotide of claim 1 comprising a polynucleotide encoding a polypeptide having the amino sequence of SEQ ID NO:2, wherein said polynucleotide is DNA.

11. A method of making a recombinant vector comprising inserting the isolated polynucleotide of claim 7 into a vector.

12. A recombinant vector comprising the polynucleotide of claim 7.

13. A recombinant host cell comprising the polynucleotide of claim 7.

14. A method for producing a polypeptide comprising expressing from the recombinant cell of claim 13 the polypeptide encoded by said polynucleotide.

15. A method of making a recombinant vector comprising inserting the isolated polynucleotide of claim 10 into a vector.

16. A recombinant vector comprising the polynucleotide of claim 10.

17. A recombinant host cell comprising the polynucleotide of claim 10.

18. A method for producing a polypeptide comprising expressing from the recombinant cell of claim 17 the polypeptide encoded by said polynucleotide.

19. A process for producing a polypeptide comprising:  
expressing from a recombinant cell containing the polynucleotide of claim 7 the polypeptide encoded by said polynucleotide.
20. A process for producing a polypeptide comprising:  
expressing from a recombinant cell containing the polynucleotide of claim 10 the polypeptide encoded by said polynucleotide.
21. The isolated polynucleotide of claim 1 comprising nucleotides 380 to 535 of SEQ ID NO:1.
22. The isolated polynucleotide of claim 1 comprising nucleotides 80 to 535 of SEQ ID NO:1.
23. The isolated polynucleotide of claim 1 comprising the nucleotides 80 to 616 of SEQ ID NO:1.
24. The isolated polynucleotide of claim 1 comprising the nucleotides 5 to 691 of SEQ ID NO:1.
25. An isolated polynucleotide comprising a polynucleotide having at least a 95% identity to a member selected from the group consisting of:  
(a) a polynucleotide encoding the same mature polypeptide encoded by the human cDNA in ATCC Deposit No. 97342; and  
(b) the complement of (a).
26. The isolated polynucleotide of claim 25, wherein the member is (a).
27. The isolated polynucleotide of claim 25, wherein said polynucleotide comprises DNA identical to the coding portion

of the human cDNA in ATCC Deposit No. 97342 which encodes a mature polypeptide.

28. An isolated polypeptide comprising:

a mature polypeptide having an amino acid sequence encoded by a polynucleotide which is at least 95% identical to the polynucleotide of claim 7.

29. An isolated polypeptide comprising:

a mature polypeptide having an amino acid sequence encoded by a polynucleotide which is at least 95% identical to the polynucleotide of claim 10.

30. The isolated polypeptide of claim 28, comprising amino acids 26 to 177 of SEQ ID NO:2.

31. The isolated polypeptide of claim 28, comprising amino acids 26 to 204 of SEQ ID NO:2.

32. The isolated polypeptide of claim 28, comprising amino acids 1 to 177 of SEQ ID NO:2.

33. The isolated polypeptide of claim 28, comprising amino acids 1 to 204 of SEQ ID NO:2.

34. An isolated polypeptide comprising:

a mature polypeptide encoded by a polynucleotide which is at least 95% identical to the human cDNA contained in ATCC Deposit No. 97342.

35. The isolated polypeptide of claim 34 comprising the mature polypeptide encoded by the human cDNA in ATCC Deposit No. 97342.

36. An antibody against the polypeptide of claim 28.

37. An antagonist against the polypeptide of claim 28.

38. A method for the treatment of a patient having need of TGF $\alpha$ -HIII comprising: administering to the patient a therapeutically effective amount of the polypeptide of claim 28.

39. A method for the treatment of a patient having need to inhibit TGF $\alpha$ -HIII comprising: administering to the patient a therapeutically effective amount of the compound of Claim 37.

40. The method of Claim 40 wherein said therapeutically effective amount of the polypeptide is administered by providing to the patient DNA encoding said polypeptide and expressing said polypeptide *in vivo*.

41. A process for identifying compounds active as agonists to the polypeptide of Claim 28 comprising:

contacting a reaction mixture containing a cell type which expresses a TGF $\alpha$ -HIII receptor and a compound to be screened; and

determining if the compound generates a signal from said receptor to identify if the compound is an effective agonist.

42. A process for identifying compounds active as antagonists to the polypeptide of Claim 28 comprising:

contacting a reaction mixture containing a cell which expresses the TGF $\alpha$ -HIII receptor and a compound to be screened; and

detecting the absence of a signal generated from said receptor after binding of said compound to identify if the compound is an effective antagonist.

43. A process for diagnosing a disease or a susceptibility to a disease comprising:

determining a mutation in the polynucleotide of claim 1.

44. A diagnostic process comprising:

analyzing for the presence of the polypeptide of Claim 28 in a sample derived from host.